

GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: October 3, 2002, 09:44:39 ; Search time 111.01 Seconds  
(without alignments)  
1404.625 Million cell updates/sec

Title: US-09-555-093-2  
Perfect score: 2410  
Sequence: 1 MYVDKNASGLRMKVDGKWL.....YAMNLOQLKNMAEHIOAKA 443

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 3502263 seqs, 351980561 residues

Total number of hits satisfying chosen parameters: 3502263

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Pending\_Patents\_AA\_Main:\*

1: /cgn2\_6/ptodata/2/paa/PCRTUS\_COMB.pep.\*  
2: /cgn2\_6/ptodata/2/paa/US06\_COMB.pep.\*  
3: /cgn2\_6/ptodata/2/paa/US07\_COMB.pep.\*  
4: /cgn2\_6/ptodata/2/paa/US080\_COMB.pep.\*  
5: /cgn2\_6/ptodata/2/paa/US081\_COMB.pep.\*  
6: /cgn2\_6/ptodata/2/paa/US082\_COMB.pep.\*  
7: /cgn2\_6/ptodata/2/paa/US083\_COMB.pep.\*  
8: /cgn2\_6/ptodata/2/paa/US084\_COMB.pep.\*  
9: /cgn2\_6/ptodata/2/paa/US085\_COMB.pep.\*  
10: /cgn2\_6/ptodata/2/paa/US086\_COMB.pep.\*  
11: /cgn2\_6/ptodata/2/paa/US087\_COMB.pep.\*  
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13: /cgn2\_6/ptodata/2/paa/US089\_COMB.pep.\*  
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15: /cgn2\_6/ptodata/2/paa/US091\_COMB.pep.\*  
16: /cgn2\_6/ptodata/2/paa/US092\_COMB.pep.\*  
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18: /cgn2\_6/ptodata/2/paa/US094\_COMB.pep.\*  
19: /cgn2\_6/ptodata/2/paa/US095\_COMB.pep.\*  
20: /cgn2\_6/ptodata/2/paa/US096\_COMB.pep.\*  
21: /cgn2\_6/ptodata/2/paa/US097\_COMB.pep.\*  
22: /cgn2\_6/ptodata/2/paa/US098\_COMB.pep.\*  
23: /cgn2\_6/ptodata/2/paa/US099\_COMB.pep.\*  
24: /cgn2\_6/ptodata/2/paa/US100\_COMB.pep.\*  
25: /cgn2\_6/ptodata/2/paa/US101\_COMB.pep.\*  
26: /cgn2\_6/ptodata/2/paa/US60\_COMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2410	100.0	443	19	US-09-555-093-2
2	2410	100.0	443	19	US-09-555-093-6
3	2400	99.6	443	19	US-09-582-034-20
4	2399	99.5	443	19	US-09-555-093-4
5	2340	97.1	471	19	US-09-555-093-5
6	1092.5	45.3	447	1	PCT-US99-28655-2
7	1092.5	45.3	447	22	US-09-857-583-2

8	1078	44.7	448	19	US-09-582-034-4	Sequence 4, Appli
9	597.5	24.8	422	1	PCT-US99-28655-4	Sequence 4, Appli
10	597.5	24.8	422	22	US-09-857-583-4	Sequence 4, Appli
11	590.5	24.5	525	17	US-09-347-531B-2	Sequence 2, Appli
12	585.5	24.3	453	21	US-09-769-863-14	Sequence 14, Appli
13	557	23.1	457	1	PCT-US00-19011-4	Sequence 4, Appli
14	557	23.1	457	13	US-08-956-985-2	Sequence 2, Appli
15	557	23.1	457	13	US-08-956-985-2	Sequence 2, Appli
16	557	23.1	457	14	US-09-087-578-4	Sequence 4, Appli
17	557	23.1	457	17	US-09-330-235-18	Sequence 18, Appli
18	557	23.1	457	17	US-09-351-525-4	Sequence 4, Appli
19	557	23.1	457	17	US-09-351-525A-4	Sequence 4, Appli
20	557	23.1	457	17	US-09-355-903-2	Sequence 2, Appli
21	557	23.1	457	17	US-09-355-903B-2	Sequence 2, Appli
22	557	23.1	457	17	US-09-363-526-2	Sequence 2, Appli
23	557	23.1	457	17	US-09-367-013B-2	Sequence 2, Appli
24	557	23.1	458	16	US-09-227-613-11	Sequence 11, Appli
25	557	23.1	458	16	US-09-227-613-41	Sequence 41, Appli
26	557	23.1	458	18	US-09-439-261-10	Sequence 10, Appli
27	557	23.1	458	18	US-09-439-261-44	Sequence 44, Appli
28	555	23.0	457	13	US-08-956-985-15	Sequence 15, Appli
29	555	23.0	457	17	US-08-956-985-15	Sequence 4, Appli
30	555	23.0	457	17	US-09-377-452-4	Sequence 4, Appli
31	555	23.0	457	17	US-09-377-452-4	Sequence 4, Appli
32	501	20.8	355	13	US-08-956-985-7	Sequence 7, Appli
33	501	20.8	355	13	US-08-956-985A-7	Sequence 7, Appli
34	501	20.8	355	17	US-09-355-903-7	Sequence 7, Appli
35	501	20.8	355	17	US-09-355-903B-7	Sequence 7, Appli
36	501	20.8	355	17	US-09-363-526-5	Sequence 5, Appli
37	501	20.8	355	17	US-09-367-013B-5	Sequence 5, Appli
38	485	20.1	323	16	US-09-227-613-17	Sequence 17, Appli
39	485	20.1	323	18	US-09-439-261-17	Sequence 17, Appli
40	463.5	19.2	449	21	US-09-708-427-1025	Sequence 1025, Ap
41	460.5	19.1	458	15	US-09-116-639-5	Sequence 5, Appli
42	460.5	19.1	458	19	US-09-582-034-11	Sequence 11, Appli
43	460.5	19.1	458	21	US-09-719-601-13	Sequence 13, Appli
44	457.5	19.0	447	19	US-09-555-093-7	Sequence 7, Appli
45	457.5	19.0	448	19	US-09-582-034-13	Sequence 13, Appli

ALIGNMENTS

RESULT 1  
US-09-555-093-2  
; Sequence 2, Application US/09555093  
; GENERAL INFORMATION:  
; APPLICANT: Napier, Johnathan A.  
; TITLE OF INVENTION: Desaturase Genes and their Use  
; FILE REFERENCE: 000487.00001  
; CURRENT APPLICATION NUMBER: US/09/555,093  
; CURRENT FILING DATE: 2000-08-22  
; PRIOR APPLICATION NUMBER: UK 9724783.7  
; PRIOR FILING DATE: 1997-11-24  
; PRIOR APPLICATION NUMBER: PCT/GB98/03507  
; PRIOR FILING DATE: 1998-11-24  
; NUMBER OF SEQ ID NOS: 8  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 2  
; LENGTH: 443  
; TYPE: PRT  
; ORGANISM: C. elegans  
US-09-555-093-2

Query Match 100.0%; Score 2410; DB 19; Length 443;  
Best Local Similarity 100.0%; Pred. No. 2.le-232;  
Matches 443; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
QY 1 MYVDKNASGLRMKVDGKWLSEELVKKHPGCAVIEQYRNSDATHIFHAFHEGSSQAYKQ 60  
DB 1 MYVDKNASGLRMKVDGKWLSEELVKKHPGCAVIEQYRNSDATHIFHAFHEGSSQAYKQ 60

QY 61 L D L L K K H G H D E F L E K Q L E K R L D K V D I N V S A D V S V A Q E K K M V E S F E K L R Q K L H D D G L M K 120  
D B 61 L D L L K K H G H D E F L E K Q L E K R L D K V D I N V S A D V S V A Q E K K M V E S F E K L R Q K L H D D G L M K 120  
QY 121 A N E T Y F L F K A I S T L S I M A F A Y L Q Y L G W Y I T S A C L L A L A W Q O F G W L T H E F C H Q O P T K N R P 180  
D B 121 A N E T Y F L F K A I S T L S I M A F A Y L Q Y L G W Y I T S A C L L A L A W Q O F G W L T H E F C H Q O P T K N R P 180  
QY 181 L N D T I S L F F G N F L Q G S R D W K D K H N T H A A T N V I D H D G D I D L A P L F A F I P G D L C K Y K A S 240  
D B 181 L N D T I S L F F G N F L Q G S R D W K D K H N T H A A T N V I D H D G D I D L A P L F A F I P G D L C K Y K A S 240  
QY 241 F E K A I L K I V P Y O H L Y F T A M L P M L R F S W T Q S V Q W F K E N O M E Y K V Y O R N A F W E Q A T I V G H 300  
D B 241 F E K A I L K I V P Y O H L Y F T A M L P M L R F S W T Q S V Q W F K E N O M E Y K V Y O R N A F W E Q A T I V G H 300  
QY 301 W A W F Y Q L F L L P T W P L R V A Y F I I S Q M G G L L A H V V T F N H N S V D K Y P A N S R I L N N F A A L Q 360  
D B 301 W A W F Y Q L F L L P T W P L R V A Y F I I S Q M G G L L A H V V T F N H N S V D K Y P A N S R I L N N F A A L Q 360  
QY 361 I L T R N M T S P F I D W L W G G L N Y Q I E H H L F P T P R C N L N A C V Y K V K E W C K E N N L P Y L V D D Y 420  
D B 361 I L T R N M T S P F I D W L W G G L N Y Q I E H H L F P T P R C N L N A C V Y K V K E W C K E N N L P Y L V D D Y 420  
QY 421 F D G Y A M N L Q O L K N M A E H I O A K A A 443  
D B 421 F D G Y A M N L Q O L K N M A E H I O A K A A 443

## RESULT 2

US-09-555-093-6

; Sequence 6, Application US/09555093  
; GENERAL INFORMATION:  
; APPLICANT: Napier, Johnathan A.  
; TITLE OF INVENTION: Desaturase Genes and their Use  
; FILE REFERENCE: 000487, 00001  
; CURRENT APPLICATION NUMBER: US/09/555,093  
; CURRENT FILING DATE: 2000-08-22  
; PRIOR APPLICATION NUMBER: UK 9724783.7  
; PRIOR FILING DATE: 1997-11-24  
; PRIOR APPLICATION NUMBER: PCT/GB98/03507  
; PRIOR FILING DATE: 1998-11-24  
; NUMBER OF SEQ ID NOS: 8  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 6  
; LENGTH: 443  
; TYPE: PRT  
; ORGANISM: Borage  
US-09-555-093-6

Query Match 100.0%; Score 2410; DB 19; Length 443;  
Best Local Similarity 100.0%; Pred. No. 2.1e-232;  
Matches 443; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 M V V D K N A S G L R M K V D G K W L Y L S E E L V K K H P G G A V I E Q Y R N S D A T H I F A F H E G S S Q A Y K Q 60  
D B 1 M V V D K N A S G L R M K V D G K W L Y L S E E L V K K H P G G A V I E Q Y R N S D A T H I F A F H E G S S Q A Y K Q 60  
QY 61 L D L L K K H G H D E F L E K Q L E K R L D K V D I N V S A D V S V A Q E K K M V E S F E K L R Q K L H D D G L M K 120  
D B 61 L D L L K K H G H D E F L E K Q L E K R L D K V D I N V S A D V S V A Q E K K M V E S F E K L R Q K L H D D G L M K 120  
QY 121 A N E T Y F L F K A I S T L S I M A F A Y L Q Y L G W Y I T S A C L L A L A W Q O F G W L T H E F C H Q O P T K N R P 180  
D B 121 A N E T Y F L F K A I S T L S I M A F A Y L Q Y L G W Y I T S A C L L A L A W Q O F G W L T H E F C H Q O P T K N R P 180  
QY 181 L N D T I S L F F G N F L Q G S R D W K D K H N T H A A T N V I D H D G D I D L A P L F A F I P G D L C K Y K A S 240  
D B 181 L N D T I S L F F G N F L Q G S R D W K D K H N T H A A T N V I D H D G D I D L A P L F A F I P G D L C K Y K A S 240  
QY 241 F E K A I L K I V P Y O H L Y F T A M L P M L R F S W T Q S V Q W F K E N O M E Y K V Y O R N A F W E Q A T I V G H 300  
D B 241 F E K A I L K I V P Y O H L Y F T A M L P M L R F S W T Q S V Q W F K E N O M E Y K V Y O R N A F W E Q A T I V G H 300

D B 241 F E K A I L K I V P Y O H L Y F T A M L P M L R F S W T Q S V Q W F K E N O M E Y K V Y O R N A F W E Q A T I V G H 300  
QY 301 W A W F Y Q L F L L P T W P L R V A Y F I I S Q M G G L L A H V V T F N H N S V D K Y P A N S R I L N N F A A L Q 360  
D B 301 W A W F Y Q L F L L P T W P L R V A Y F I I S Q M G G L L A H V V T F N H N S V D K Y P A N S R I L N N F A A L Q 360  
QY 361 I L T R N M T S P F I D W L W G G L N Y Q I E H H L F P T P R C N L N A C V Y K V K E W C K E N N L P Y L V D D Y 420  
D B 361 I L T R N M T S P F I D W L W G G L N Y Q I E H H L F P T P R C N L N A C V Y K V K E W C K E N N L P Y L V D D Y 420  
QY 421 F D G Y A M N L Q O L K N M A E H I O A K A A 443  
D B 421 F D G Y A M N L Q O L K N M A E H I O A K A A 443  
RESULT 3  
US-09-582-034-20  
; Sequence 20, Application US/09582034  
; GENERAL INFORMATION:  
; APPLICANT: Napier, Johnathan A.  
; APPLICANT: Michaelson, Louise  
; APPLICANT: Stobart, Keith  
; TITLE OF INVENTION: Desaturase  
; FILE REFERENCE: 00487, 00003  
; CURRENT APPLICATION NUMBER: US/09/582,034  
; CURRENT FILING DATE: 2000-12-19  
; PRIOR APPLICATION NUMBER: PCT/GB98/03895  
; PRIOR FILING DATE: 1998-12-23  
; PRIOR APPLICATION NUMBER: UK 9814034.6  
; PRIOR FILING DATE: 1998-06-29  
; PRIOR APPLICATION NUMBER: UK 9727256.1  
; PRIOR FILING DATE: 1997-12-23  
; NUMBER OF SEQ ID NOS: 20  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 20  
; LENGTH: 443  
; TYPE: PRT  
; ORGANISM: C. elegans  
US-09-582-034-20

Query Match 99.6%; Score 2400; DB 19; Length 443;  
Best Local Similarity 99.5%; Pred. No. 2.1e-231;  
Matches 441; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 M V V D K N A S G L R M K V D G K W L Y L S E E L V K K H P G G A V I E Q Y R N S D A T H I F A F H E G S S Q A Y K Q 60  
D B 1 M V V D K N A S G L R M K V D G K W L Y L S E E L V K K H P G G A V I E Q Y R N S D A T H I F A F H E G S S Q A Y K Q 60  
QY 61 L D L L K K H G H D E F L E K Q L E K R L D K V D I N V S A D V S V A Q E K K M V E S F E K L R Q K L H D D G L M K 120  
D B 61 L D L L K K H G H D E F L E K Q L E K R L D K V D I N V S A D V S V A Q E K K M V E S F E K L R Q K L H D D G L M K 120  
QY 121 A N E T Y F L F K A I S T L S I M A F A Y L Q Y L G W Y I T S A C L L A L A W Q O F G W L T H E F C H Q O P T K N R P 180  
D B 121 A N E T Y F L F K A I S T L S I M A F A Y L Q Y L G W Y I T S A C L L A L A W Q O F G W L T H E F C H Q O P T K N R P 180  
QY 181 L N D T I S L F F G N F L Q G S R D W K D K H N T H A A T N V I D H D G D I D L A P L F A F I P G D L C K Y K A S 240  
D B 181 L N D T I S L F F G N F L Q G S R D W K D K H N T H A A T N V I D H D G D I D L A P L F A F I P G D L C K Y K A S 240  
QY 241 F E K A I L K I V P Y O H L Y F T A M L P M L R F S W T Q S V Q W F K E N O M E Y K V Y O R N A F W E Q A T I V G H 300  
D B 241 F E K A I L K I V P Y O H L Y F T A M L P M L R F S W T Q S V Q W F K E N O M E Y K V Y O R N A F W E Q A T I V G H 300  
QY 301 W A W F Y Q L F L L P T W P L R V A Y F I I S Q M G G L L A H V V T F N H N S V D K Y P A N S R I L N N F A A L Q 360  
D B 301 W A W F Y Q L F L L P T W P L R V A Y F I I S Q M G G L L A H V V T F N H N S V D K Y P A N S R I L N N F A A L Q 360  
QY 361 I L T R N M T S P F I D W L W G G L N Y Q I E H H L F P T P R C N L N A C V Y K V K E W C K E N N L P Y L V D D Y 420  
D B 361 I L T R N M T S P F I D W L W G G L N Y Q I E H H L F P T P R C N L N A C V Y K V K E W C K E N N L P Y L V D D Y 420

QY 421 FDGYAMNLOQLKNAEHIQAKAA 443  
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Db 421 FDGYAMNLOQLKNAEHIQAKAA 443

## RESULT 4

US-09-555-093-4  
; Sequence 4, Application US/09555093  
; GENERAL INFORMATION:  
; APPLICANT: Napier, Johnathan A.  
; TITLE OF INVENTION: Desaturase Genes and their use  
; FILE REFERENCE: 000487.00001  
; CURRENT APPLICATION NUMBER: US/09/555.093  
; CURRENT FILING DATE: 2000-08-22  
; PRIOR APPLICATION NUMBER: UK 9724783.7  
; PRIOR FILING DATE: 1997-11-24  
; PRIOR APPLICATION NUMBER: PCT/GB98/03507  
; PRIOR FILING DATE: 1998-11-24  
; NUMBER OF SEQ ID NOS: 8  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 4  
; LENGTH: 443  
; TYPE: PRT  
; ORGANISM: C. elegans  
US-09-555-093-4

Query Match 99.5%; Score 2399; DB 19; Length 443;  
Best Local Similarity 99.8%; Pred. No. 2.7e-231;  
Matches 442; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 MVDKNASGLRMKVDGKWLILSEELVKKHGPGAVIEQYRNSDATHIFHAFHEGSSQAYKQ 60  
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Db 1 MVDKNASGLRMKVDGKWLILSEELVKKHGPGAVIEQYRNSDATHIFHAFHEGSSQAYKQ 60  
QY 61 LDLLKKHGEHDEFLEKLEKRLDKVDINVSAYDVSVAQEKKMWSEFEKLRQKLHDDGLMK 120  
Db 61 LDLLKKHGEHDEFLEKLEKRLDKVDINVSAYDVSVAQEKKMWSEFEKLRQKLHDDGLMK 120  
QY 121 ANETVFLFKATLSIMAFAYLQYLGYITTSACLLALAWOQFGWLTFEFCHQOPTKNRP 180  
Db 121 ANETVFLFKATLSIMAFAYLQYLGYITTSACLLALAWOQFGWLTFEFCHQOPTKNRP 180  
QY 181 LNDTSLFEGNLFQGSFSDWKKHNTHTHAATNVIDHGDGIDLAFIPGDLCKYKAS 240  
Db 181 LNDTSLFEGNLFQGSFSDWKKHNTHTHAATNVIDHGDGIDLAFIPGDLCKYKAS 240  
QY 241 FEKAILKIVPYOHLFTAMLPLRESWTGQSVQWVFKENQMEYKYQRNAFWEQATIVGH 300  
Db 241 FEKAILKIVPYOHLFTAMLPLRESWTGQSVQWVFKENQMEYKYQRNAFWEQATIVGH 300  
QY 301 WAWVFYQLFLLPTWPLRVAYFTIISOMGGGLLHAHVVTNHNNSVDKYPANSTRILNFAALQ 360  
Db 301 WAWVFYQLFLLPTWPLRVAYFTIISOMGGGLLHAHVVTNHNNSVDKYPANSTRILNFAALQ 360  
QY 361 ILTTRNMTSPFIDWLGGLNYQIEHLLFTMPRCNLNACVKYKWKCKENNLPLYVDY 420  
Db 361 ILTTRNMTSPFIDWLGGLNYQIEHLLFTMPRCNLNACVKYKWKCKENNLPLYVDY 420  
QY 421 FDGYAMNLOQLKNAEHIQAKAA 443  
Db 421 FDGYAMNLOQLKNAEHIQAKAA 443

## RESULT 5

US-09-555-093-5  
; Sequence 5, Application US/09555093  
; GENERAL INFORMATION:  
; APPLICANT: Napier, Johnathan A.  
; TITLE OF INVENTION: Desaturase Genes and their use  
; FILE REFERENCE: 000487.00001  
; CURRENT APPLICATION NUMBER: US/09/555.093  
; CURRENT FILING DATE: 2000-08-22

; PRIOR APPLICATION NUMBER: UK 9724783.7  
; PRIOR FILING DATE: 1997-11-24  
; PRIOR APPLICATION NUMBER: PCT/GB98/03507  
; PRIOR FILING DATE: 1998-11-24  
; NUMBER OF SEQ ID NOS: 8  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 5  
; LENGTH: 471  
; TYPE: PRT  
; ORGANISM: C. elegans  
US-09-555-093-5

Query Match 97.1%; Score 2340; DB 19; Length 471;  
Best Local Similarity 92.8%; Pred. No. 2.5e-225;  
Matches 439; Conservative 1; Mismatches 1; Indels 32; Gaps 3;  
QY 1 MVDKNASGLRMKVDGKWLILSEELVKKHGPGAVIEQYRNSDATHIFHAFHEGSSQAYKQ 37  
|||||  
Db 1 MVDKNASGLRMKVDGKWLILSEELVKKHGPGAVIEQYRNSDATHIFHAFHEGSSQAYKQ 59  
QY 38 -----YRNSDATHIFHAFHEGSSQAYKQDLKKHGEHDEFLEKLEKRLDKVDINVS 90  
Db 60 ALDILFYRNSDATHIFHAFHEGSSQAYKQDLKKHGEHDEFLEKLEKRLDKVDINVS 119  
QY 91 AYDVSVAQEKKMWSEFEKLRQKLHDDGLMKANETVFLFKATLSIMAFAYLQYLGYI 150  
Db 120 AYDVSVAQEKKMWSEFEKLRQKLHDDGLMKANETVFLFKATLSIMAFAYLQYLGYI 178  
QY 151 TSACLLALAWOQFGWLTFEFCHQOPTKNRPNDTSLFEGNLFQGSFSDWKKHNTHTHA 210  
Db 179 TSACLLALAWOQFGWLTFEFCHQOPTKNRPNDTSLFEGNLFQGSFSDWKKHNTHTHA 238  
QY 211 ATNVIDHGDGIDLAFIPGDLCKYKASEKAILKIVPYOHLFTAMLPLRESWTGQ 270  
Db 239 ATNVIDHGDGIDLAFIPGDLCKYKASEKAILKIVPYOHLFTAMLPLRESWTGQ 298  
QY 271 SVQWVFKENQMEYKYQRNAFWEQATIVGHAWVFWYQLFLLPTWPLRVAYFTIISOMGGGL 330  
Db 299 SVQWVFKENQMEYKYQRNAFWEQATIVGHAWVFWYQLFLLPTWPLRVAYFTIISOMGGGL 358  
QY 331 LIAHVVTNHNNSVDKYPANSTRILNFAALQILTTRNMTSPFIDWLGGLNYQIEHLLFP 390  
Db 359 LIAHVVTNHNNSVDKYPANSTRILNFAALQILTTRNMTSPFIDWLGGLNYQIEHLLFP 418  
QY 391 TMPRCNLNACVKYKWKCKENNLPLYVDYFDGYAMNLOQLKNAEHIQAKAA 443  
Db 419 TMPRCNLNACVKYKWKCKENNLPLYVDYFDGYAMNLOQLKNAEHIQAKAA 471

## RESULT 6

PCT-US99-28655-2  
; Sequence 2, Application PC/TUS9928655  
; GENERAL INFORMATION:  
; APPLICANT: Browse, John et al.  
; TITLE OF INVENTION: Desaturases and Methods of Using Them for Synthesis of  
; FILE REFERENCE: Polyunsaturated Fatty Acids  
; FILE REFERENCE: 53860  
; CURRENT APPLICATION NUMBER: PCT/US99/28655  
; CURRENT FILING DATE: 1999-12-06  
; EARLIER APPLICATION NUMBER: 60/111.301  
; EARLIER FILING DATE: 1998-12-07  
; NUMBER OF SEQ ID NOS: 13  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 2  
; LENGTH: 447  
; TYPE: PRT  
; ORGANISM: Caenorhabditis elegans  
PCT-US99-28655-2

Query Match 45.3%; Score 1092.5; DB 1; Length 447;  
Best Local Similarity 46.3%; Pred. No. 4.1e-100;

Matches 201; Conservative 84; Mismatches 140; Indels 9; Gaps 4;

QY 12 MKVDGKWLSEELVKKHPGGAVIEQYRNSDATHIFAFHPEGSSQAYKOLDLLKKGHEHD 71  
 Db 13 IKIDGKWCODDAVLRSHPGGSAITTYKNDATTVFHTFTGSKAYQWLTELKKECPTQ 72  
 QY 72 E----FLEKQLEKRLDKVDINVSADVSVAQEKKVVESFEKLRQKLDHDDGLMKANETFL 127  
 Db 73 EPEIPDKDDPIKGD--DVNMGTFNISEKRSQAINKSFDTLRMRVRAEGLMDGSPLEFY 130  
 QY 128 FKAISTLSIMAFYLOYLQWITTSACLLALAWQOFGWLTHEFCCHOQPTKNRPLNDTISL 187  
 Db 131 RKILETIFILFAYLYQYHTYLPSSAILMGVAQOGLGWLHIEFAHQLFKNRYNDLASY 190  
 QY 188 FFCNFIQGFSSGKWKQKHNTAAATNVIDHGDIDILAPLFAFIPGDLCKYKASFKAIALK 247  
 Db 191 FVGNFIQGFSSGKWKQKHNTAAATNVVGRDGLDLVPFYATVAEHLNNY--SQDSWVMT 248  
 QY 248 IVPYQHLTYFTAMLPMLRFSWGTQSVOWVFKENQMEKYVQORNAFWEOATIVGHWAFFVQ 307  
 Db 249 LFRMQHVHTFMLPFLRLSWLLQSIIFVSQMPHTHYDYRNTAIYEQVGLSLHWAWSLQ 308  
 QY 308 LFLPTPWRVAVFYIISOMGGGLLIAHVVTFNHNSVDKYPANSRILNFAALQILTRNM 367  
 Db 309 LYFLPDMSTRIMFFLVSHLVGGFLLSHVVTFNHNSYVEKFSALSNINSNTACLOIMTRNM 368  
 QY 368 TSPSPFDLWGLNGVIOIEHLLPFTMPRCNLACVYKVKWKCKENNLPLYLVDDYFDGYAMN 427  
 Db 369 RGRFRFDLWGLNGVIOIEHLLPFTMPRCNLACVYKVKWKCKENNLPLYLVDDYFDGYAMN 428  
 QY 428 LQOLKNMAEHIQAK 441  
 Db 429 IEQFRNIA-NVAAK 441

RESULT 7

US-09-857-583-2  
 ; Sequence 2, Application US/09857583  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Browse, John et al.  
 ; TITLE OF INVENTION: DESATURASES AND METHODS OF USING THEM FOR SYNTHESIS OF POLYUNSATU  
 ; FILE OF INVENTION: FATTY ACIDS  
 ; FILE REFERENCE: 4630-58963  
 ; CURRENT APPLICATION NUMBER: US/09/857,583  
 ; PRIOR FILING DATE: 2001-06-05  
 ; PRIOR APPLICATION NUMBER: US 60/111,301  
 ; PRIOR FILING DATE: 1998-12-07  
 ; PRIOR APPLICATION NUMBER: PCT/US99/28655  
 ; PRIOR FILING DATE: 1999-12-06  
 ; NUMBER OF SEQ ID NOS: 13  
 ; SOFTWARE: Patent in version 3.1  
 ; SEQ ID NO 2  
 ; LENGTH: 447  
 ; TYPE: PRT  
 ; ORGANISM: Caenorhabditis elegans  
 US-09-857-583-2

Query Match 45.3%; Score 1092.5; DB 22; Length 447;  
 Best Local Similarity 46.3%; Pred No. 4, 1e-100;

Matches 201; Conservative 84; Mismatches 140; Indels 9; Gaps 4;

QY 12 MKVDGKWLSEELVKKHPGGAVIEQYRNSDATHIFAFHPEGSSQAYKOLDLLKKGHEHD 71  
 Db 13 IKIDGKWCODDAVLRSHPGGSAITTYKNDATTVFHTFTGSKAYQWLTELKKECPTQ 72  
 QY 72 E----FLEKQLEKRLDKVDINVSADVSVAQEKKVVESFEKLRQKLDHDDGLMKANETFL 127  
 Db 73 EPEIPDKDDPIKGD--DVNMGTFNISEKRSQAINKSFDTLRMRVRAEGLMDGSPLEFY 130  
 QY 128 FKAISTLSIMAFYLOYLQWITTSACLLALAWQOFGWLTHEFCCHOQPTKNRPLNDTISL 187  
 Db 131 RKILETIFILFAYLYQYHTYLPSSAILMGVAQOGLGWLHIEFAHQLFKNRYNDLASY 190

QY 188 FFCNFIQGFSSGKWKQKHNTAAATNVIDHGDIDILAPLFAFIPGDLCKYKASFKAIALK 247  
 Db 191 FVGNFIQGFSSGKWKQKHNTAAATNVVGRDGLDLVPFYATVAEHLNNY--SQDSWVMT 248  
 QY 248 IVPYQHLTYFTAMLPMLRFSWGTQSVOWVFKENQMEKYVQORNAFWEOATIVGHWAFFVQ 307  
 Db 249 LFRMQHVHTFMLPFLRLSWLLQSIIFVSQMPHTHYDYRNTAIYEQVGLSLHWAWSLQ 308  
 QY 308 LFLPTPWRVAVFYIISOMGGGLLIAHVVTFNHNSVDKYPANSRILNFAALQILTRNM 367  
 Db 309 LYFLPDMSTRIMFFLVSHLVGGFLLSHVVTFNHNSYVEKFSALSNINSNTACLOIMTRNM 368  
 QY 368 TSPSPFDLWGLNGVIOIEHLLPFTMPRCNLACVYKVKWKCKENNLPLYLVDDYFDGYAMN 427  
 Db 369 RGRFRFDLWGLNGVIOIEHLLPFTMPRCNLACVYKVKWKCKENNLPLYLVDDYFDGYAMN 428  
 QY 428 LQOLKNMAEHIQAK 441  
 Db 429 IEQFRNIA-NVAAK 441

RESULT 8

US-09-582-034-4  
 ; Sequence 4, Application US/09582034  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Napier, Johnathan A.  
 ; APPLICANT: Michaelson, Louise  
 ; APPLICANT: Stobart, Keith  
 ; TITLE OF INVENTION: Desaturase  
 ; FILE REFERENCE: 00487.00003  
 ; CURRENT APPLICATION NUMBER: US/09/582,034  
 ; CURRENT FILING DATE: 2000-12-19  
 ; PRIOR APPLICATION NUMBER: PCT/GB98/03895  
 ; PRIOR FILING DATE: 1998-12-23  
 ; PRIOR APPLICATION NUMBER: UK 9814034.6  
 ; PRIOR FILING DATE: 1998-06-29  
 ; PRIOR APPLICATION NUMBER: UK 9727256.1  
 ; PRIOR FILING DATE: 1997-12-23  
 ; NUMBER OF SEQ ID NOS: 20  
 ; SOFTWARE: FastSeq for Windows Version 4.0  
 ; SEQ ID NO 4  
 ; LENGTH: 448  
 ; TYPE: PRT  
 ; ORGANISM: C. elegans  
 US-09-582-034-4

Query Match 44.7%; Score 1078; DB 19; Length 448;  
 Best Local Similarity 46.0%; Pred. No. 1.2e-98;

Matches 200; Conservative 85; Mismatches 140; Indels 10; Gaps 5;

QY 12 MKVDGKWLSEELVKKHPGGAVIEQYRNSDATHIFAFHPEGSSQAYKOL-DLLKKHGH 70  
 Db 13 IKIDGKWCODDAVLRSHPGGSAITTYKNDATTVFHTFTGSKAYQWLTELKKECPT 72  
 QY 71 DE----FLEKQLEKRLDKVDINVSADVSVAQEKKVVESFEKLRQKLDHDDGLMKANETFY 126  
 Db 73 EPEIPDKDDPIKGD--DVNMGTFNISEKRSQAINKSFDTLRMRVRAEGLMDGSPLEFY 130  
 QY 127 LFKATISTLSIMAFYLYQWITTSACLLALAWQOFGWLTHEFCCHOQPTKNRPLNDTIS 186  
 Db 131 RKILETIFILFAYLYQYHTYLPSSAILMGVAQOGLGWLHIEFAHQLFKNRYNDLAS 190  
 QY 187 LFFGNFIQGFSSGKWKQKHNTAAATNVIDHGDIDILAPLFAFIPGDLCKYKASFKAIAL 246  
 Db 191 IYVGNFIQGFSSGKWKQKHNTAAATNVVGRDGLDLVPFYATVAEHLNNY--SQDSWVMT 248  
 QY 247 KITVYQHLTYFTAMLPMLRFSWGTQSVOWVFKENQMEKYVQORNAFWEOATIVGHWAFFV 306  
 Db 249 TLFRRMQHVHTFMLPFLRLSWLLQSIIFVSQMPHTHYDYRNTAIYEQVGLSLHWAWSL 308  
 QY 307 QLFLPTPWRVAVFYIISOMGGGLLIAHVVTFNHNSVDKYPANSRILNFAALQILTRN 366

Db 309 QLYFLPDWSTIMFELVSHVGLFLLSHVVTENHYSVKFASSNIMSNYACLIQIMTTRN 368  
QY 367 MTPSPIDWGLNQLYQIEHLLPPTMPCNLNACVKYKWKCKENNLPLYLVDDYFDGYAM 426  
Db 369 MRPGFIDWGLNQLYQIEHLLPPTMPCNLNATVMPLYKEFAAANGPLVWDDYFTGFWL 428  
QY 427 NLQOLKNMAEHIOAK 441  
Db 429 EIEQFRNIA-NVAAK 442

RESULT 9  
PCT-US99-28655-4  
; Sequence 4, Application PC/TUS9928655  
; GENERAL INFORMATION:  
; APPLICANT: Browne, John et al.  
; TITLE OF INVENTION: Desaturases and Methods of Using Them for Synthesis of  
; FILE REFERENCE: 53860  
; CURRENT APPLICATION NUMBER: PCT/US99/28655  
; EARLIER FILING DATE: 1999-12-06  
; EARLIER FILING DATE: 1998-12-07  
; NUMBER OF SEQ ID NOS: 13  
; SOFTWARE: Patent In Ver. 2.0  
; SEQ ID NO 4  
; LENGTH: 422  
; TYPE: PRT  
; ORGANISM: Euglena gracilis  
PCT-US99-28655-4

Query Match 24.8%; Score 597.5; DB 1; Length 422;  
Best Local Similarity 34.3%; Pred. No. 1.9e-50;  
Matches 146; Conservative 70; Mismatches 171; Indels 39; Gaps 10;

QY 26 VKKHPGGA-VIEQYRNSDATHIFAFHAFEGSSQAYKQDLKKHGEHDEFLEKQLEKRLDK 84  
Db 24 VNFHPGGAEIENYQGRDATDAFVMVH--FQEAFLDKL-----KRMFK 63

QY 85 VDINVSAYDVSAQEKVKVESEKLRQKLDHDDGLMKANETYFLFKAI STLSTMAFAFYL- 143  
Db 64 INPSFELPPQAAVNEAQ--EDFRKREELIATGMFDASPLWYSYKISTTLGLVGLGYFLM 121

QY 144 -OYLGWYITSACLLALAWOFGWLTHFCHQOQPTKNRPLNDTISLFFGNFLOGFSRDWVK 202  
Db 122 VOYQMYFI-GAVLLGMHYQMGWLSHDICHQHTFKNRNNWNLVGLVFGNLOGFSVTCWK 180

QY 203 DKHNTHTAATNYVDHGDIDLAPLFAFIPGDLCKYKASFEKAILKIVPYOHLYFTAMLP 262  
Db 181 DRHNAHSATNVQGHDPDIDNLPPLAWSDDVTRASPISR----KLIOQYYVFLVICIL 236

QY 263 LRFSWTGQSVQVY----FKENQMEYKVYORNAFWEQATVGHWA-VFQLEFLLPWPLR 317  
Db 237 LRFIWCFQCVLTVRSUKDRDNQFYRSQYKKEAI----GLALHTLTKALFHLFFMPSILTS 292

QY 318 VAYFIISOMGGGLLAHVVTFNHNSVDKYPANSRLNFAALQILTRNMTSPFIDWLW 377  
Db 293 LLVFFVSELVGGFGTAIVVFMNHYPLEKIGDPVWDGHGFSVGOIHETMNIIRGIITDWF 352

QY 378 GGLNTYQIEHLLPPTMPCNLNACVKYKWKCKENNLPLYLVDDYFDGYAMNLOOLKNMAH 437  
Db 353 GGLNTYQIEHLLPPTMPCNLNATVSVQVEQLCQKHNLPYRNPLPHEGLVILLRYLAVFARM 412

QY 438 IOAKAA 443  
Db 413 AEKQPA 418

RESULT 10  
US-09-857-583-4  
; Sequence 4, Application US/09857583

; GENERAL INFORMATION:  
; APPLICANT: Browne, John et al.  
; TITLE OF INVENTION: DESATURASES AND METHODS OF USING THEM FOR SYNTHESIS OF POLYUN  
; FILE REFERENCE: 4630-58963  
; CURRENT APPLICATION NUMBER: US/09/857,583  
; PRIOR FILING DATE: 2001-06-05  
; PRIOR FILING DATE: 1998-12-07  
; PRIOR FILING DATE: 1999-12-06  
; NUMBER OF SEQ ID NOS: 13  
; SOFTWARE: Patent in version 3.1  
; SEQ ID NO 4  
; LENGTH: 422  
; TYPE: PRT  
; ORGANISM: Euglena gracilis  
US-09-857-583-4

Query Match 24.8%; Score 597.5; DB 22; Length 422;  
Best Local Similarity 34.3%; Pred. No. 1.9e-50;  
Matches 146; Conservative 70; Mismatches 171; Indels 39; Gaps 10;

QY 26 VKKHPGGA-VIEQYRNSDATHIFAFHAFEGSSQAYKQDLKKHGEHDEFLEKQLEKRLDK 84  
Db 24 VNFHPGGAEIENYQGRDATDAFVMVH--FQEAFLDKL-----KRMFK 63

QY 85 VDINVSAYDVSAQEKVKVESEKLRQKLDHDDGLMKANETYFLFKAI STLSTMAFAFYL- 143  
Db 64 INPSFELPPQAAVNEAQ--EDFRKREELIATGMFDASPLWYSYKISTTLGLVGLGYFLM 121

QY 144 -OYLGWYITSACLLALAWOFGWLTHFCHQOQPTKNRPLNDTISLFFGNFLOGFSRDWVK 202  
Db 122 VOYQMYFI-GAVLLGMHYQMGWLSHDICHQHTFKNRNNWNLVGLVFGNLOGFSVTCWK 180

QY 203 DKHNTHTAATNYVDHGDIDLAPLFAFIPGDLCKYKASFEKAILKIVPYOHLYFTAMLP 262  
Db 181 DRHNAHSATNVQGHDPDIDNLPPLAWSDDVTRASPISR----KLIOQYYVFLVICIL 236

QY 263 LRFSWTGQSVQVY----FKENQMEYKVYORNAFWEQATVGHWA-VFQLEFLLPWPLR 317  
Db 237 LRFIWCFQCVLTVRSUKDRDNQFYRSQYKKEAI----GLALHTLTKALFHLFFMPSILTS 292

QY 318 VAYFIISOMGGGLLAHVVTFNHNSVDKYPANSRLNFAALQILTRNMTSPFIDWLW 377  
Db 293 LLVFFVSELVGGFGTAIVVFMNHYPLEKIGDPVWDGHGFSVGOIHETMNIIRGIITDWF 352

QY 378 GGLNTYQIEHLLPPTMPCNLNACVKYKWKCKENNLPLYLVDDYFDGYAMNLOOLKNMAH 437  
Db 353 GGLNTYQIEHLLPPTMPCNLNATVSVQVEQLCQKHNLPYRNPLPHEGLVILLRYLAVFARM 412

QY 438 IOAKAA 443  
Db 413 AEKQPA 418

RESULT 11  
US-09-347-531B-2  
; Sequence 2, Application US/09347531B  
; GENERAL INFORMATION:  
; APPLICANT: Heinz, Ernst  
; APPLICANT: Girke, Thomas  
; APPLICANT: Scheffler, Jodi  
; APPLICANT: Silva, Oswaldo De Costa E.  
; APPLICANT: Lerchl, Jens  
; TITLE OF INVENTION: Characterization of a new Delta-6 Desaturase from Physcomitrel  
; FILE REFERENCE: OZ 0050-50461  
; CURRENT APPLICATION NUMBER: US/09/347,531B  
; CURRENT FILING DATE: 1999-07-06  
; NUMBER OF SEQ ID NOS: 10  
; SOFTWARE: Patent in Vers. 2.0/WordPerfect 6.1  
; SEQ ID NO 2



[illegible]

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QY 132 STLISINAFAYLOYLGN-----YITSACLLALAWQQGWLTHFECHQOQPKNRLPNDT 188
Db 130 FNLCIWGLSTVI--VAKWGQSTSTLANVLSAALLGLFWQCGWLAHDFLHHQVFDQRFWGD 188
QY 185 ISLFFGNFLOGFSRDWKKDKNHTTHAATNVIDHDGDIIDLAPL-----FAPLPG-D 233
Db 189 FGAFLGVCVCGFSSSKWKDKHNTTHAAPNVGHGDDPDIDTHPLTWTSEHALEMFSDVPDEE 248
QY 234 LCRYKASFEKAILKIYPYQHLXYFTAMLPLRFSWTGQSVQWFEKENQMEYKVYQR--NAF 291
Db 249 LTRWMSRF-----MVLNQTWFFYPILSPARLSKCLQSILFVLPGSOAHKPSGARVPISL 302
QY 292 WEQATIVGHWAIFYOQLFLLPTWPLR-VAYFIISQMGGLLIAHVYTFNHNNSVDKYPANS 350
Db 303 VEQLSLAMHTWTYLATMFLFIKDPQNNVLVYFLVSQVCGNLLAIVESLNHNGMPVISKEE 362
QY 351 RILNFAAQLILTRNWTSPFIDMLWGLNGVQIOIEHHLFPTMPCRNLCACVYVKEWCKE 410
Db 363 AVDMDFETKQITGRDVHPLGFANWTGNGVQIOIEHHLFSPMRPHNFISKIQAPAVETLCKK 422
QY 411 NNPLVLDYDDYFGYAMNLOQKNMAE 436
Db 423 YNVRYHTTGMEGTAEVFSRLNEVSK 448

RESULT 15
US-08-956-985A-2
; Sequence 2, Application US/08956985A
; GENERAL INFORMATION:
; APPLICANT: KNUTZON, DEBORAH
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR SYNTHESIS
; OF LONG CHAIN POLY-UNSATURATED FATTY ACIDS
; NUMBER OF SEQUENCES: 28
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: RAE-VENTER LAW GROUP, P.C.
; STREET: P.O. Box 60039
; CITY: Palo Alto
; STATE: CA
; COUNTRY: USA
; ZIP: 94306-0039
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/956,985A
; FILING DATE: 24-OCT-1997
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/834,033
; FILING DATE: 11-APR-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/833,610
; FILING DATE: 11-APR-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: RAE-VENTER, BARBARA
; REGISTRATION NUMBER: 32,750
; REFERENCE/DOCKET NUMBER: CGNEL28.01US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (650)328-4400
; TELEFAX: (650)328-4477
; TELEX: N/A
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 457 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-956-985A-2

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Query Match      23.1%; Score 557; DB 13; Length 457;
Best Local Similarity 32.1%; Pred. No. 2.5e-46;
Matches 143; Conservative 64; Mismatches 187; Indels 52; Gaps 11;

QY 12 MKYDGLWLYLSELYKHHKGGAVIEQYRNSDATHIFAHFHESSQAYKOLDLLKKHGEHD 71
Db 34 MIIDNR-VYDVREFVDPHFGGVSILTHVGKDGTDVDFTEPEAAW----- 77
QY 72 EFLKQLEKRLDKVDINVSAYDVSAQEKMMVESFEKLRQKLHDDGLMKANETYLFLFKAI 131
Db 78 ETLANFYVGDISDRDKNDDEFA-AEVRKRLTLFQSL-----GYDSSKAYAFKVS 129
QY 132 STLSIMAFAYLYQLGK-----YITSACLLALAMQOFGWLTHERFCHQOPTKNRPLNDT 184
Db 130 FNLCINGLSTVI-VAKWGOTSTLANVLSAALLGLFWQCGWLAHDFLHHQVFQDREWGDL 188
QY 185 ISLFFGNFLOGFSRDWKKHNTHTHAATVVIDHGDGIDLAPL-----FAFIG-D 233
Db 189 FGAFGGVCQGFSSWKKHNTHTHAAPNVHGEDPDIDTHTPLLTWSEHALEMFSVDPDEE 248
QY 234 LCRYKASFEKAILKIVPYQHLYFTAMPLRFSWTGQSVQWVFKEKQMEYKVVQR--NAF 291
Db 249 LTRMNSRF-----WVLNQTWFYFPILSFARLSWCLOSLFVLPNCQAHKPSGARVPISL 302
QY 292 WEQATIVGHWAVFYOLFLLPTWPLR-VAYFIISOMGGGLLIAHVVTFNHNSVDKYPANS 350
Db 303 VEQLSLAMHWTYLATMFLFKDPVNMVFLVSVQAVCGNLLAIVFSLNHNHMPVISKEE 362
QY 351 RILNFAALQILTRNMTSPFIDWLWGLNGLYQIEHHLFTWPRCNLNACVKYVKEWCKE 410
Db 363 AVDMDFTKOITIGRDVHFGLEFANWFTGGLNYQIEHHLFPMRHNFSKIQPAVETLCKK 422
QY 411 NNLPLYLVDDYFDGYAMNLOOLKNMAE 436
Db 423 YNVRVHTTGMEGTAEVFSRLNEYSK 448
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Search completed: October 3, 2002, 09:50:30  
Job time: 351 sec



GenCore version 4.5  
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OM protein - protein search, using sw model

Run on: October 3, 2002, 09:46:39 ; Search time 44.66 Seconds  
(without alignments)  
2722.906 Million cell updates/sec

Title: US-09-555-093-2  
Perfect score: 2410  
Sequence: 1 MVVDKNASGLRMKVDGKWLX.....YAMNLOQLKNMAEHIQAKA 443

Scoring table:  
BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 995467 seqs, 274503342 residues

Total number of hits satisfying chosen parameters: 995467

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Pending\_Patents\_AA\_New:\*  
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2: /cgn2.6/prodata/1/paa/US06\_NEW\_COMB.pep.\*  
3: /cgn2.6/prodata/1/paa/US07\_NEW\_COMB.pep.\*  
4: /cgn2.6/prodata/1/paa/US08\_NEW\_COMB.pep.\*  
5: /cgn2.6/prodata/1/paa/US09\_NEW\_COMB.pep.\*  
6: /cgn2.6/prodata/1/paa/US10\_NEW\_COMB.pep.\*  
7: /cgn2.6/prodata/1/paa/US60\_NEW\_COMB.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2382	98.8	473	US-60-360-039-6108	Sequence 6108, Ap
2	1079	44.8	454	US-60-360-039-6107	Sequence 6107, Ap
3	592	24.6	520	US-09-980-468-12	Sequence 12, Appl
4	590.5	24.5	525	US-10-019-048-2	Sequence 2, Appl1
5	577	23.9	459	US-09-967-477B-8	Sequence 8, Appl1
6	559	23.2	483	US-09-980-468-2	Sequence 2, Appl1
7	559	23.2	483	US-09-980-468-4	Sequence 4, Appl1
8	557	23.1	457	US-09-791-537-137323	Sequence 137323, A
9	556	23.1	457	US-09-791-537-28566	Sequence 28566, A
10	463.5	19.2	449	US-09-935-625-19395	Sequence 19395, A
11	463.5	19.2	449	US-09-791-537-131173	Sequence 131173, A
12	460.5	19.0	458	US-09-791-537-146143	Sequence 146143, A
13	457.5	19.0	448	US-09-791-537-105419	Sequence 105419, A
14	454.5	18.9	448	US-09-791-537-102275	Sequence 102275, A
15	452	18.8	446	US-09-791-537-87710	Sequence 87710, A
16	448.5	18.6	448	US-09-685-775-5	Sequence 5, Appl1
17	448.5	18.6	469	US-09-791-537-5349	Sequence 5349, Ap
18	443.5	18.4	449	US-09-791-537-83798	Sequence 83798, A
19	433	18.0	449	US-09-791-537-83823	Sequence 83823, A
20	431	17.9	467	US-10-219-999-44485	Sequence 44485, A
21	429.5	17.8	358	US-10-219-999-59629	Sequence 59629, A
22	425.5	17.7	314	US-10-219-999-45182	Sequence 45182, A
23	425.5	17.7	314	US-60-391-781-1348	Sequence 1348, Ap
24	424	17.6	497	US-10-219-999-44454	Sequence 44454, A
25	415	17.2	448	US-10-219-999-44526	Sequence 44526, A
26	410.5	17.0	326	US-09-935-625-19396	Sequence 19396, A

ALIGNMENTS

RESULT 1  
US-60-360-039-6108  
; Sequence 6108, Application US/603600039  
; GENERAL INFORMATION:  
; APPLICANT: Cao, Yongwei  
; APPLICANT: Chen, Xianfeng  
; APPLICANT: Goldman, Barry S.  
; APPLICANT: Hinkle, Gregory J.  
; APPLICANT: Slater, Steven C.  
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF  
; FILE OF INVENTION: PLANTS WITH IMPROVED PROPERTIES  
; FILE REFERENCE: 38-10(52052)A  
; CURRENT APPLICATION NUMBER: US/60/360,039  
; CURRENT FILING DATE: 2002-02-21  
; NUMBER OF SEQ ID NOS: 47374  
; SEQ ID NO 6108  
; LENGTH: 473  
; TYPE: PRT  
; ORGANISM: Caenorhabditis elegans  
US-60-360-039-6108

Query Match	98.8%	Score 2382;	DB 7;	Length 473;
Best Local Similarity	93.4%	Pred. No. 1.7e-198;		
Matches 442;	Conservative 1;	Mismatches 0;	Indels 30;	Gaps 1;
QY	1	MVVDKNASGLRMKVDGKWLXSEELVKKHGGAVIQ-----	37	
Db	1	MVVDKNASGLRMKVDGKWLXSEELVKKHGGAVIQSIPLNKNKNIETRIITRGSSN	60	
QY	38	-----YRNSDATHIFAFHEGSSOAYKOLDLLKKHGEHDEFLEKLEKRLDKVDINVS	90	
Db	61	ALDILFYRNSDATHIFAFHEGSSOAYKOLDLLKKHGEHDEFLEKLEKRLDKVDINVS	120	
QY	91	AYDVSVAOEKKWVESPEKRLKLDGLMKANETYLEFKRAISTLMAFAFYLYGLGWI	150	
Db	121	AYDVSVAOEKKWVESPEKRLKLDGLMKANETYLEFKRAISTLMAFAFYLYGLGWI	180	
QY	151	TSACLLALAWOQFGWLTHFECHOOPTKNRPLNDTISLFFGNFQGFSDRWKDKHNTHA	210	
Db	181	TSACLLALAWOQFGWLTHFECHOOPTKNRPLNDTISLFFGNFQGFSDRWKDKHNTHA	240	
QY	211	ATNVIDHDGDIAPLAFATIPGDLCKYKASFKAILEKIVPYQHLIYFTAMLPMLRFSWTG	270	
Db	241	ATNVIDHDGDIAPLAFATIPGDLCKYKASFKAILEKIVPYQHLIYFTAMLPMLRFSWTG	300	
QY	271	SVQWFEKENOMEKVVQRNFAWEQATVGHWAFFVQLFLLPTWPLRVAFIISQMGGL	330	
Db	301	SVQWFEKENOMEKVVQRNFAWEQATVGHWAFFVQLFLLPTWPLRVAFIISQMGGL	360	

Qy 331 LIAHVTFNHSVDKYPANSRILNFAALQILTRNMTSPFIDMLWGLNLYQIEHHLFP 390  
Db 361 LIAHVTFNHSVDKYPANSRILNFAALQILTRNMTSPFIDMLWGLNLYQIEHHLFP 420  
Qy 391 TMPRCNLNACVKKYKWKCKENNLPLYLVDVDFDGYAMNLOQLKNAEHQAKAA 443  
Db 421 TMPRCNLNACVKKYKWKCKENNLPLYLVDVDFDGYAMNLOQLKNAEHQAKAA 473

RESULT 2  
US-60-360-039-6107  
; Sequence 6107, Application US/60360039  
; GENERAL INFORMATION:  
; APPLICANT: Cao, Yongwei  
; APPLICANT: Chen, Xianfeng  
; APPLICANT: Goldman, Barry S.  
; APPLICANT: Hinkle, Gregory J.  
; APPLICANT: Slater, Steven C.  
; TITLE OF INVENTION: EXPRESSION OF MICROBIAL PROTEINS IN PLANTS FOR PRODUCTION OF  
; FILE REFERENCE: 38-10(52052)A  
; CURRENT APPLICATION NUMBER: US/60/360, 039  
; CURRENT FILING DATE: 2002-02-21  
; NUMBER OF SEQ ID NOS: 47374  
; SEQ ID NO 6107  
; LENGTH: 454  
; TYPE: PRT  
; ORGANISM: Caenorhabditis elegans  
US-60-360-039-6107

Query Match 44.8%; Score 1079; DB 7; Length 454;  
Best Local Similarity 45.6%; Pred. No. 3e-85;  
Matches 201; Conservative 84; Mismatches 140; Indels 16; Gaps 5;  
Qy 12 MKVDGKWLYLEELVKKHPGAVIEQYRNSDATHIFHAFHEGSSQAYKQLDLKKHGEHD 71  
Db 13 IKIDGKWCDDAVLRSHPGSAITTKNDATTVFHTFTGSGKEAYQWLTELKKECPTQ 72  
Qy 72 E----FLEKQLEKRLKVDINVSAYDVSVAQEK---KMWSEFEKLRKLDHDDGLMKANETVFL 127  
Db 73 EPEIPDIRDDPIKID--DVMGTGTFNISRKSAQINKSFDTLRMRVRAEGLMDGSPIFYI 130  
Qy 128 FKAISTLSIMAFYQLGYLWITSACLLALAWQFGWLTHFCHQOQPTKRNPLNDTISL 187  
Db 131 RKILETITILFAPYLYQHYLYLPSAILMGVAMQGLWLIHEFAHQLFKNRYNDLASY 190  
Qy 188 FFGNFLO-----GFSRDWKKKHNTTHAATVVIDHGDIDIDLAPLPAFIPGDLCKYKAS 240  
Db 191 FVGNFLQVSHIFNNGFSGGGKQHNHHAATNVVGRDGLDLVPFYATVAEHLNNY--S 248  
Qy 241 FEKAILKIVPYOHLVFTAMLPMLRFSWTGOSVQVWFKENQMEYKVVQYORNAFWEQATIVGH 300  
Db 249 QDSWMTLFRQVHWHVTFMLPFLRLSLQSIIFVSOMPHYDYVRNTAIYEQVGLSLH 308  
Qy 301 WAWFYQLFLPTPLRVAYFIISQMGGLLIARHVTFNHNSVDKYPANSRILNFAALQ 360  
Db 309 WANSGLQYFLPDWSTRIMFELVSHLVGFLGFLSHVTFNHYSEKFALSNINSNVACLO 368  
Qy 361 ILTRNMTSPFIDMLWGLNLYQIEHHLFPTMPCNLNACVKKYKWKCKENNLPLYLVDV 420  
Db 369 IMTRNMRPGRFIDMLWGLNLYQIEHHLFPTMPCNLNACVKKYKWKCKENNLPLYLVDV 428  
Qy 421 FDGYAMNLOQLKNAEHQAK 441  
Db 429 FTGFWLEIEQFRNIA-NVAAK 448

RESULT 3  
US-09-980-468-12  
; Sequence 12, Application US/09980468  
; GENERAL INFORMATION:

; APPLICANT: BASF Aktiengesellschaft  
; TITLE OF INVENTION: D6 acetylase and D6 desaturase from Ceratodon purpureus  
; FILE REFERENCE: 99 1388  
; CURRENT APPLICATION NUMBER: US/09/980,468  
; CURRENT FILING DATE: 2002-12-03  
; PRIOR APPLICATION NUMBER: 19925718.3  
; PRIOR FILING DATE: 1999-06-07  
; NUMBER OF SEQ ID NOS: 28  
; SOFTWARE: PatentIn Vers. 2.0  
; SEQ ID NO 12  
; LENGTH: 520  
; TYPE: PRT  
; ORGANISM: Ceratodon purpureus  
US-09-980-468-12

Query Match 24.6%; Score 592; DB 5; Length 520;  
Best Local Similarity 32.2%; Pred. No. 7.7e-43;  
Matches 146; Conservative 79; Mismatches 154; Indels 74; Gaps 15;  
Qy 18 WLYLSEEL-----VKKHPGGAVIEQYRNSDATHIFHAFHEGSSQAYKQLDLKKHGEHD 71  
Db 115 WIIIEKVDVSTFAEQHPGCTVINTYFGRDATDVFSTFH--ASTSWKILQ----- 163  
Qy 72 EFLEKQLEKRLKVDINVSAYDVSVAQEK---KMWSEFEKLRKLDHDDGLMKANETVFL 128  
Db 164 -----NFYIGNLVREEPTLELLKREYRELALF--REQLFKSKSYLF 205  
Qy 129 KAISTLSIMA-----FAFYQLGYLWITSACLLALAWQFGWLTHFCHQOQPTKRNPLND 183  
Db 206 KTLINVSIVATSIATISLYKSYRA-VLLSASLMGLFTQCGWLSHDFLHHQVETRWLND 264  
Qy 184 TISLFTGNGFLQFSRDWKKKHNTTHAATVVIDH-----DGDIDIDLAPLPAFIPGDLCKYK 238  
Db 265 VGVYVGVNVLGVSQWTKKHLHHAAPNECDQKTPIDEDIDTLPILAWSKDLATVE 324  
Qy 239 ASFEKAILKIVPYOHLVFTAMLPMLRFSWTGOSVQVWFK--ENOMEYKVVQYORNAFWEQATI 297  
Db 325 S---KTMRLVQLQHLFFLVLLTFAFASWLFWSAAFTLRPELTGKELLER-----GTM 375  
Qy 298 VGHWA-----VFQLELLPTPLRVAYFIISQMGGLLIARHVTFNHNSVDKYPANSRIL 353  
Db 376 ALHYIWFNSVAFY---LLPGWK--PVVMVVSSELSMGLGIVFVLSHNGEVNTS---- 427  
Qy 354 NPFALQILTRNMTSPFIDMLWGLNLYQIEHHLFPTMPCNLNACVKKYKWKCKENNL 413  
Db 428 KDFVNAQIASTRDIKAGVFNWFTGGLNRCIEHHLFPTMPCNLNACVKKYKWKCKENNL 487  
Qy 414 PYLVDDYFDGYAMNLOQLKNAE---HIQAKAA 443  
Db 488 VYEDVSMASGTYRVLTKLDVADAASHQQLAAS 520

RESULT 4  
US-10-019-048-2  
; Sequence 2, Application US/10019048  
; GENERAL INFORMATION:  
; APPLICANT: Heinz, Ernst  
; APPLICANT: Girke, Thomas  
; APPLICANT: Scheffler, Jodi  
; APPLICANT: Da Costa e Silva, Oswaldo  
; TITLE OF INVENTION: Plants expressing 6-desaturase genes, PUFAS-containing oils fro  
; FILE REFERENCE: 0093/000032  
; CURRENT APPLICATION NUMBER: US/10/019,048  
; CURRENT FILING DATE: 2002-03-19  
; PRIOR APPLICATION NUMBER: PCT/EP00/006223  
; PRIOR FILING DATE: 2000-07-04  
; NUMBER OF SEQ ID NOS: 2  
; SOFTWARE: WordPerfect version 6.1  
; SEQ ID NO 2  
; LENGTH: 525  
; TYPE: PRT

; ORGANISM: Physcomitrella patens  
US-10-019-048-2

Query Match	24.5%;	Score	590.5;	DB	6;	Length	525;
Best Local Similarity	32.5%;	Pred. No. le-42;					
Matches	140;	Conservative	76;	Mismatches	160;	Indels	55;
Gaps	12;						
Qy	19	LYLSEELVKKPPGAVIPEYRNSDATHIFAFHFGSSQAYKQLDLLKKHGHDLEKQL	78				
Db	127	VYDYSNFADEHPGGSVISTYFGRDGTDFSSFHAATWKILQ-----DFYIGDV	175				
Qy	79	EKRLDKVDINYSADVSAQEKWKVESPEKRLQKLLHDDGLMKANETYFLFKAISPLSIWA	138				
Db	176	ER-----VEPTPELKKDPRMKALFLRQLFKSSKLYIKVMKLLTNVAL--	218				
Qy	139	FAFYLOQLGW-----YITTSACLALAAQQOQGLWTHFCHQOQPKNRPLNDTISLFFGNF	192				
Db	219	FAASIAIICWKSKTISAVLASACMALCFQCGWLSHDLPHNQVETRWLNVGVVIGNA	278				
Qy	193	LQGSRDWWKDKHHTHAATVNIH-----DGDIDLAPLFAPIPDGLCKYKASFEKAILK	247				
Db	279	VLGFSTGWKEKHNLHHAAPNECDOYQPIDEDIDTFLPIAWSKDILATVE---NKTELR	335				
Qy	248	IVPQHLFYFTAMLPLRFSWTQSQVQWFKENOMEYKVKYQRNATFEQATIVGHNAW-VFY	306				
Db	336	ILOYHLFFMGLLFFARGSWLFS--WRYTSTAVLSPV---DRLLEKGTVLVHFYFWFVGT	390				
Qy	307	QLFLLPFW-PLRVAVFIIISOMGGGLLTAHVYTFHNHSYDKYFANSRILNNFAAQILNTR	365				
Db	391	ACYLLPGWKPL--VVMATVLSMGLMGJGFVFLSHNGMEVYNS-----KEFVSAQIVSTR	444				
Qy	366	NMTPSPFDIWLWGGLNQYIEHLEFPTMPRCNLACVKKVKECKENNNLPYLVDYDFDGYA	425				
Db	445	DIKGNIFNDWFTGGLNRQIEHLEFPTMPRNLNKIAPRVFVECKKHGLVYEDVSTATGTC	504				
Qy	426	MNLOOLKNAAE	436				
Db	505	KVLKALKEVAE	515				

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RESULT      5
US-09-967-477B-8
; Sequence 8, Application US/09967477B
; GENERAL INFORMATION:
; APPLICANT: Xiao Qiu
; APPLICANT: Haiping Hong
; TITLE OF INVENTION: FAD4, FAD5, FAD5-2, AND FAD6, NOVEL
; TITLE OF INVENTION: FATTY ACID DESATURASE FAMILY MEMBERS AND USES THEREOF
; FILE REFERENCE: BNZ-001
; CURRENT APPLICATION NUMBER: US/09/967,477B
; CURRENT FILING DATE: 2002-04-16
; PRIOR APPLICATION NUMBER: 60/236,303
; PRIOR FILING DATE: 2000-09-28
; PRIOR APPLICATION NUMBER: 60/297,562
; PRIOR FILING DATE: 2001-06-12
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: FastSEQ for Windows version 4.0
; SEQ ID NO 8
; LENGTH: 459
; TYPE: PRT
; ORGANISM: Thraustochytrium sp.
US-09-967-477B-8

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Query Match      23.98; Score 577; DB 5; Length 459;
Best Local Similarity 33.98; Pred. No. 1.3e-41;
Matches 147; Conservative 67; Mismatches 158; Indels 62; Gaps 16;

QY 17 KWLXLSBELVKKHKPGGAVIEQRYRNSDATHIFAHFEGSSQAYKOLDLLKHH--GEHDEFL 74
   ||| ||||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
K 39 KW-----DSHPGGSVMLTQACEDATDAFAVHPSPSA-----LKLLEFYVGVGDVETS 85
   ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| ||| |||
Db

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Qy	75	EKQLEKRLDKVDINV	SAYDSVSAQEKKM	---VSEFKLR	OKLHDDG	IGLMKANETY	YFLFKAL	131																																															
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Db	86	KAETI	-----GEPASDEERARR	INEFIAS	RYRLRVK	FGHGLDASALY	YAAKWLV	137																																															
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Qy	132	STLSI	---MAFAYLOYL	GWYIT	SACLLALAW	QCGWLTH	FECHQOPTKNR	PLNDTISL	187																																														
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Db	138	STFGI	AVLSMAICFF	FNFSFAM	YVAGVIM	GLFYCQSG	WLADH	ELHNOVCNRT	FLGNLIGC	197																																													
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Qy	188	FFG	PLQCFSDRM	WKDKH	NTHHAAT	NVIDH	-----DGD	IDIDLAP	LFAFIPGD	LCKYK	238																																												
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Db	198	LVG	NAWQGS	FQWKK	KHNLH	HAVPNL	-HSA	DEGF	IGDPD	IDITW	PLAWSK	--MAR	252																																										
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Qy	239	ASF	EKA	---ILK	IVPYO	HLTYT	AML	PMUR	FSW	TG	QSVOW	WFKENQ	MEYK	YVORNAF	--WEO	294																																							
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Qy	295	AT	IVGH	WAW	-----V	FQ	LF	LL	P	W	LR	VAY	F	I	I	S	O	M	G	G	L	L	I	A	H	V	V	T	N	H	N	S	V	D	K	Y	P	A	N	349															
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Db	310	AG	L	V	H	V	I	W	I	A	I	P	C	N	S	L	F	E	---G	V	A	I	F	L	M	Q	A	S	C	G	L	L	A	L	A	F	S	T	G	H	N	G	S	V	E	R	E	365							
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Qy	350	S	R	I	L	N	E	A	A	Q	I	L	T	R	N	M	T	P	S	P	F	I	D	W	L	G	G	L	N	Y	Q	I	E	H	L	L	E	P	T	M	P	R	C	N	A	C	Y	K	Y	K	E	W	C	409	
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Db	366	T	K	--P	D	E	W	Q	L	O	V	T	T	R	N	I	R	A	S	V	E	M	D	W	T	G	G	L	N	Y	Q	I	D	H	L	L	E	P	L	P	R	N	L	P	K	V	N	V	L	I	S	L	C	K	423
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Qy	410	E	N	N	L	P	Y	L	V	D	D	Y	F	D	G	423																																							
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Db	424	E	F	D	I	P	F	H	E	T	G	F	W	E	G	437																																							
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RESULT 6
US-03-980-468-2
; Sequence 2, Application US/09980458
; GENERAL INFORMATION:
; APPLICANT: BASF Aktiengesellschaft
; TITLE OF INVENTION: D6 acetylase and D6
; FILE REFERENCE: 99 1388
; CURRENT APPLICATION NUMBER: US/09/980,468
; CURRENT FILING DATE: 2002-12-03
; PRIOR APPLICATION NUMBER: 19925718.3
; PRIOR FILING DATE: 1999-06-07
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: PatentIn Vers. 2.0
; SEQ ID NO 2
; LENGTH: 483
; TYPE: PRT
; ORGANISM: Ceratodon purpureus
; US-03-980-468-2

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Query Match      23.2%; Score 559; DB 5; Length 483;
Best Local Similarity 32.6%; Pred. No. 5.2e-40;
Matches 136; Conservative 66; Mismatches 155; Indels 60; Gaps 13;

Qy 18 WLYLSEEL-----VKKHPGAVIEQYRNSDATHIFAHFEGSSQAYKQLDLLKKHGEHD 71
   : : : : : ||| ||| ||| ||| ||| ||| ||| ||| ||| : : : : :
Db 78 WMIVKEKYIDISRADDHPGGTIVSTYGRDGTDFATFHPPA--AWQL-----ND 127

Qy 72 EFL-EKQLEKRLDKVDINVSAIDVSVAQEKKWVSFEKLRQKLDHDDGLMKANETYFLFK- 129
   : : : : : ||| : : : : : ||| : : : : : ||| : : : : :
Db 128 YYIGDLAREEPLD-----ELLKDYRDMRAEFYREGFLFKSKAWFLLOT 170

Qy 130 ----AISTLSIMAFYLIQYLGWYIT-SACLLALAWQQFGWLTHFECHQOPTKNRPLNDT 184

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Qy	185	ISLFGFNLOGFSRDWKKDKHNTHTAATNVIDH-----DGDIDLALPLFAFIPGDLCKKYA	239
Db	229	FGYLFGNCVLGFSYSWRTTKHNTHTHTAPNCECDQYTPLEDIDITDPLIIAWSKEILATVES	288
Qy	240	SFEAILKIVPYQHLHYETAMLPLRFQSWTCQSVQWTFKQMQEKYVYQRNAFEQATVIG	299
Db	289	---KRILRVLOYOYHMILPLLFQWARKYSWTFGSLFFNPDLSTTK-----GLLEKGTVAF	340

```
QY 300 HAAWVYQOLF-LPTWPLRVAYFIISOMGGGLLIAHVVTNHNHNSVDKYPANRILNNFAA 358
Db 341 HYAFWAAFHILPGVAKPLAWVATLVLGGLLGFVFTLSHNGKEYNES----KDFVR 396
QY 359 LOILTRNMTPSPFDLWGLNGLVQIEHHLFPPTMPCRNACVYKVKWKCKENNLPLY 415
Db 397 AQVITTRNTRGWNDFWFTGLDQIEHHLFPPTMPCRNACVYKVKWKCKENNLPLY 453

RESULT 7
US-09-980-468-4
; Sequence 4, Application US/09980468
; GENERAL INFORMATION:
; APPLICANT: BASF Aktiengesellschaft
; TITLE OF INVENTION: D6 acetylenase and D6 desaturase from Ceratodon purpureus
; FILE REFERENCE: 99 1388
; CURRENT APPLICATION NUMBER: US/09/980,468
; CURRENT FILING DATE: 2002-12-03
; PRIOR APPLICATION NUMBER: 19925718.3
; PRIOR FILING DATE: 1999-06-07
; NUMBER OF SEQ ID NOS: 28
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
; LENGTH: 483
; TYPE: PRT
; ORGANISM: Ceratodon purpureus
; US-09-980-468-4

Query Match 23.2%; Score 559; DB 5; Length 483;
Best Local Similarity 32.8%; Pred. No. 5.2e-40;
Matches 136; Conservative 66; Mismatches 155; Indels 60; Gaps 13;

QY 18 WLXLYSEEL-----VKKHPGAVIEQYRNSDATHIFHAFHEGSSQAYKQDLLKKGHEHD 71
Db 78 WMIVKEKVDISREADDHPGGTVISTYFGDGTDFVATFHPA--AWKQL-----ND 127
QY 72 EFL-EKOLEKRLDKVDINVSAYDSVAQEKKMWESFEKLRQKLHDDGLMKANETYFLFK- 129
Db 128 YYIGDLAREPLD-----ELLDKVDRAEAEFVREGLEKSSKAWFLLQT 170
QY 130 ----AISTLSIMAFAYLOYLGVIT-SACLLALANQOFGWLTHFCCHQOPTKNRPLNDF 184
Db 171 LINALFAASIAITICYDKSY--NAVLUSALMGLFWQCCGWLHDFLHQOVFNRTANSF 228
QY 185 ISLFFGNFLQGSFSDWKKHNTTHAATNVIDH-----DGDIDLAPLFAIPGDLCKYKA 239
Db 229 FGYLFGNCVLGFSVSWRTKHNTHHTAPNECDQYTPLEDIDTLPILAWSKEILATVES 288
QY 240 SPEKAILKIVPYOHLVFTAMLPMLRFSWTSQSVQWVFKENQMEYKYVQRNAPWEQATIG 299
Db 289 ---KRILRVLOYQHMYLPLLEWARYSWTEGSLFTFNPDLSITTK-----GLIEKGTVAF 340
QY 300 HAAWVYQOLF-LPTWPLRVAYFIISOMGGGLLIAHVVTNHNHNSVDKYPANRILNNFAA 358
Db 341 HYAFWAAFHILPGVAKPLAWVATLVLGGLLGFVFTLSHNGKEYNES----KDFVR 396
QY 359 LOILTRNMTPSPFDLWGLNGLVQIEHHLFPPTMPCRNACVYKVKWKCKENNLPLY 415
Db 397 AQVITTRNTRGWNDFWFTGLDQIEHHLFPPTMPCRNACVYKVKWKCKENNLPLY 453

RESULT 8
US-09-791-537-137323
; Sequence 137323, Application US/09791537
; GENERAL INFORMATION:
; APPLICANT: Bionomix, Inc.
; APPLICANT: Danzer, Joseph
; APPLICANT: Debe, Derek
; TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMB
; FILE REFERENCE: 261/210
; CURRENT APPLICATION NUMBER: US/09/791,537
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; CURRENT FILING DATE: 2001-02-22
; NUMBER OF SEQ ID NOS: 153055
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 137323
; LENGTH: 457
; TYPE: PRT
; ORGANISM: Mortierella alpina
; US-09-791-537-137323

Query Match 23.1%; Score 557; DB 5; Length 457;
Best Local Similarity 32.1%; Pred. No. 7.2e-40;
Matches 143; Conservative 64; Mismatches 187; Indels 52; Gaps 11;

QY 12 MKVDGKWLXLYSEELVKKHPGAVIEQYRNSDATHIFHAFHEGSSQAYKQDLLKKGHEHD 71
Db 34 MIIDNK-VYDVREFVDPHPGGSVILTHVGKDGTDVDFTHPEAAW----- 77
QY 72 EFL-EKOLEKRLDKVDINVSAYDSVAQEKKMWESFEKLRQKLHDDGLMKANETYFLFKAI 131
Db 78 ETLANFYVGDIDESDRDIKNDFA-AEVRKRLRTLQSL-----GYDSSKAYYAFKVS 129
QY 132 STLSIMAFAYLOYLGV-----YITSACLLALANQOFGWLTHFCCHQOPTKNRPLNDF 184
Db 130 FNLCTINGLSTVI-VAKWGQSTLANVLSAALGLFWQCCGWLHDFLHQOVFODRFWGLD 188
QY 185 ISLFFGNFLQGSFSDWKKHNTTHAATNVIDHGDIDIDLAPL-----FAFIPG-D 233
Db 189 FGAFGLGVCQGSFSSWKKHNTTHAATNVIDHGDIDIDLAPL-----FAFIPG-D 248
QY 234 LCKYKASFEKAILKIVPYOHLVFTAMLPMLRFSWTSQSVQWVFKENQMEYKYVQR--NAF 291
Db 249 LTRMWSRF-----MYLNTQWTFEPLISFARLSWCLQSLFLVLPNGOAHKPSGARVPISL 302
QY 292 WEQATVGHWAWEYQOLFLLPTWPLR-VAYFIISOMGGGLLIAHVVTNHNHNSVDKYPANS 350
Db 303 VEOLSLAMHTWTATWFLFKIDPVMNLYVFLVSQVCGNLLAIVFSLNHNHNPVISKEE 362
QY 351 RILNNAFALQILTRNMTPSPFDLWGLNGLVQIEHHLFPPTMPCRNACVYKVKWKCKE 410
Db 363 AVDMDFTKQIITGRDVPGLFANWFTGGLNGLVQIEHHLFSPMRHNFESKIQPAVETLCKK 422
QY 411 NNLPLYVDDYDFGYANLQOLKNNAE 436
Db 423 YNRYHTTGMIEGTAEVFSRLNEVSK 448

RESULT 9
US-09-791-537-28566
; Sequence 28566, Application US/09791537
; GENERAL INFORMATION:
; APPLICANT: Bionomix, Inc.
; APPLICANT: Danzer, Joseph
; APPLICANT: Debe, Derek
; TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY ME
; FILE REFERENCE: 261/210
; CURRENT APPLICATION NUMBER: US/09/791,537
; CURRENT FILING DATE: 2001-02-22
; NUMBER OF SEQ ID NOS: 153055
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 28566
; LENGTH: 457
; TYPE: PRT
; ORGANISM: Mortierella alpina
; US-09-791-537-28566

Query Match 23.1%; Score 556; DB 5; Length 457;
Best Local Similarity 31.8%; Pred. No. 8.8e-40;
Matches 142; Conservative 64; Mismatches 188; Indels 52; Gaps 11;

QY 12 MKVDGKWLXLYSEELVKKHPGAVIEQYRNSDATHIFHAFHEGSSQAYKQDLLKKGHEHD 71
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Db 34 MIIDNK-VYDREVPDHEGGVILTHVGKDGCTDVTDFHPEAAW----- 77  
QY 72 EFLEKQLEKRLDKVDINVSAYDSVAQEKKMWSEFEKRLQKLDHGLDGLKMAKETVFLFKAI 131  
Db 78 ETLANFYVGDIDESDRAIKNDDEFA-AEVKRLTLFQSL-----GYDSSKAYIAFKVS 129  
QY 132 STLSIMAFAYLOYLGW-----YITSACLLALAWQFGWLTHFECHQOQTKNRPNDT 184  
Db 130 FNLCINGLSTFI-VAKGQGTSTLANVLSAALLGLFWQCGWLAHDPLHQQVQDREPWGDL 188  
QY 185 ISLFFCNFLQGSROWKDKHNTTHAATNVVIDHGDIDLAPL-----FAFTPG-D 233  
Db 189 FGAFUGVCGFGSSWKKDKHNTTHAATNVVGHGEDPDIDTHPLLTWSEHALEMFSDVPDEE 248  
QY 234 LCKYKASFKAALKIVPYQHLYFTAMLPMLRFSWTGOSVQWVFEKQMEYKVVQR--NAF 291  
Db 249 LTRMSRF-----WVLTNTWTFEFTLSPARLSWCLQSINFVLPNQAHKPSGARVPISL 302  
QY 292 WEOATVGHAWVYQOLFLLPTWPLR-VAYFIISQMGGLLIAHVTFNHNNSVDKYPANS 350  
Db 303 VEQLSLAMHTWYLATMFLFIKDPVNMIVFLVSQAVCGNLLAIVFSLNHNMGMPVTSKEE 362  
QY 351 RIILNFAAQILTRNMTSPFIDWLWGGGLNYQIEHHLFPTMPRCNLNACVYKWKCKE 410  
Db 363 AYDMDFTKOIIITGRDVPGLFANFTGGLNYQIEHHLFPTMPRCNLNACVYKWKCKE 422  
QY 411 NNLPLYVDDYFDGYAMNLOQLKMAE 436  
Db 423 YGVRHTTGMIEGTAEFSLNEVSK 448

## RESULT 10

US-09-935-625-19395  
; Sequence 19395, Application US/099335625  
; GENERAL INFORMATION:  
; APPLICANT: N. ALEXANDROV et al.  
; TITLE OF INVENTION: POLYNUCLEOTIDES, POLYPEPTIDES, CELLS, AND METHODS THEREOF CAPABLE  
; FILE REFERENCE: 2750-1481P  
; CURRENT APPLICATION NUMBER: US/09/935,625  
; CURRENT FILING DATE: 2001-08-24  
; NUMBER OF SEQ ID NOS: 33136  
; SEQ ID NO 19395  
; LENGTH: 449  
; TYPE: PRT  
; ORGANISM: Arabidopsis thaliana  
; NAME/KEY: peptide  
; LOCATION: 1..449  
; OTHER INFORMATION: Ceres Seq. ID no. 1807271  
US-09-935-625-19395

Query Match 19.2%; Score 463.5; DB 5; Length 449;  
Best Local Similarity 30.5%; Pred. No. 9.4e-32;  
Matches 138; Conservative 67; Mismatches 186; Indels 61; Gaps 19;  
QY 10 LRKVDGKWLILSEELVKKHPGG-AVIEQYRNSDATHIFAFHEGSSQAYKOLDLLKKHG 68  
Db 24 LWSIQGK-VYDVSQWVSKHPGGERAILNLQAGQDVTDAFIAYHPT--AWHLEKL-HNG 79  
QY 69 EHDEFLEKOLEKRLDKVDINVSAYDSVAQEKKMWSEFEKRLQKLDHGLDGLM--KANETVF 126  
Db 80 YHVR-----DHHVS--DVS-----RDYRRLAAEFKRGLEFDKKKGHTVLY 116  
QY 127 LFKAISTLSIMAFAYLYQLG-----W-YITSACLLALAWQFGWLTHFECHQOQTKNRP 181  
Db 117 ---TLTCVGVMLANVLYGLVLAITSIAHLLSIVLGLLQISAYVGHDSGHVTVSTKPC 173  
QY 182 NDTISLFFCNFLQGSROWKDKHNTTHAATNVVIDHGDIDLAPLFA-----FIPGDLCKY 237  
Db 174 NKLIQLLSCNCLTGISIAWKKWTHNAHHTACNSLDHDPDLQHIPIFAVSTKFFNSMTSRF 173  
QY 182 NDTISLFFCNFLQGSROWKDKHNTTHAATNVVIDHGDIDLAPLFA-----FIPGDLCKY 237  
Db 174 NKLIQLLSCNCLTGISIAWKKWTHNAHHTACNSLDHDPDLQHIPIFAVSTKFFNSMTSRF 233

QY 238 ---KASFKAALKIVPYQHLYFTAMLPMLRFSWTGOSVQWVFEKQMEYKVVQRNAFWEQ 294  
Db 234 YGRKLTDFDLARFLISYQHWTFYPMCVGRINLIOTFTLLFSKRHPDRL-----NI 287  
QY 295 ATIVGHAWVYQOLFLLPTWPLRVAIFYIISQMGGLLIAHV-VTFNHNNSVDKY--PANR 351  
Db 288 AGILVFWTFWFLVSLPLNMQERFIYFVVS--FAVTAIQHVQFCLNHFADVYTGPPNG- 344  
QY 352 ILNNAFAAQILTRNMTSPFIDWLWGGGLNYQIEHHLFPTMPRCNLNACVYKWKCKEN 411  
Db 345 ---NDWFEKOTACTLDISCRSFMDFGGLQFQLEHHLFPLRPLRCHLRTVSPVVKELCKKH 402  
QY 412 NLPYLVDYFDGYAMNLOQLKMAEHIQAKA 443  
Db 403 NLPYRSLSWNEANVTIRTKNAA--IQARDA 432  
RESULT 11  
US-09-791-537-131173  
; Sequence 131173, Application US/09791537  
; GENERAL INFORMATION:  
; APPLICANT: Bionomix, Inc.  
; APPLICANT: Debe, Derek  
; TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY ME  
; TITLE OF INVENTION: METHODS OF USE THEREOF  
; FILE REFERENCE: 261/210  
; CURRENT APPLICATION NUMBER: US/09/791,537  
; CURRENT FILING DATE: 2001-02-22  
; NUMBER OF SEQ ID NOS: 153055  
; SOFTWARE: PatentIn version 3.0  
; SEQ ID NO 131173  
; LENGTH: 449  
; TYPE: PRT  
; ORGANISM: Arabidopsis thaliana  
US-09-791-537-131173  
Query Match 19.2%; Score 463.5; DB 5; Length 449;  
Best Local Similarity 30.5%; Pred. No. 9.4e-32;  
Matches 138; Conservative 67; Mismatches 186; Indels 61; Gaps 19;  
QY 10 LRKVDGKWLILSEELVKKHPGG-AVIEQYRNSDATHIFAFHEGSSQAYKOLDLLKKHG 68  
Db 24 LWSIQGK-VYDVSQWVSKHPGGERAILNLQAGQDVTDAFIAYHPT--AWHLEKL-HNG 79  
QY 69 EHDEFLEKOLEKRLDKVDINVSAYDSVAQEKKMWSEFEKRLQKLDHGLDGLM--KANETVF 126  
Db 80 YHVR-----DHHVS--DVS-----RDYRRLAAEFKRGLEFDKKKGHTVLY 116  
QY 127 LFKAISTLSIMAFAYLYQLG-----W-YITSACLLALAWQFGWLTHFECHQOQTKNRP 181  
Db 117 ---TLTCVGVMLANVLYGLVLAITSIAHLLSIVLGLLQISAYVGHDSGHVTVSTKPC 173  
QY 182 NDTISLFFCNFLQGSROWKDKHNTTHAATNVVIDHGDIDLAPLFA-----FIPGDLCKY 237  
Db 174 NKLIQLLSCNCLTGISIAWKKWTHNAHHTACNSLDHDPDLQHIPIFAVSTKFFNSMTSRF 233  
QY 238 ---KASFKAALKIVPYQHLYFTAMLPMLRFSWTGOSVQWVFEKQMEYKVVQRNAFWEQ 294  
Db 234 YGRKLTDFDLARFLISYQHWTFYPMCVGRINLIOTFTLLFSKRHPDRL-----NI 287  
QY 295 ATIVGHAWVYQOLFLLPTWPLRVAIFYIISQMGGLLIAHV-VTFNHNNSVDKY--PANR 351  
Db 288 AGILVFWTFWFLVSLPLNMQERFIYFVVS--FAVTAIQHVQFCLNHFADVYTGPPNG- 344  
QY 352 ILNNAFAAQILTRNMTSPFIDWLWGGGLNYQIEHHLFPTMPRCNLNACVYKWKCKEN 411  
Db 345 ---NDWFEKOTACTLDISCRSFMDFGGLQFQLEHHLFPLRPLRCHLRTVSPVVKELCKKH 402  
QY 412 NLPYLVDYFDGYAMNLOQLKMAEHIQAKA 443

Db 403 NLPYRSLSWNEANVTITLKNAA--IQARDA 432

## RESULT 12

US-09-791-537-146143

; Sequence 146143, Application US/09791537

; GENERAL INFORMATION:

; APPLICANT: Bionomix, Inc.

; APPLICANT: Danzer, Joseph

; APPLICANT: Debe, Derek

; TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBERS

; TITLE OF INVENTION: METHODS OF USE THEREOF

; FILE REFERENCE: 261/210

; CURRENT APPLICATION NUMBER: US/09/791,537

; CURRENT FILING DATE: 2001-02-22

; NUMBER OF SEQ ID NOS: 153055

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 146143

; LENGTH: 458

; TYPE: PRT

; ORGANISM: Helianthus annuus

US-09-791-537-146143

Query Match 19.1%; Score 460.5; DB 5; Length 458;

Best Local Similarity 28.1%; Pred. No. 1.8e-31;

Matches 131; Conservative 71; Mismatches 191; Indels 61; Gaps 16;

QY 6 NASGLRMKVDGKWLSEELVKHPGG-AVIEQYRNSDATHIFHAFHEGSSQAYKQLDLL 64

Db 29 NPNDLWISLIGK-VYNTWEAKHPGGDAPLINLAGODVTDATFAHPGT--AWKHLDKL 85

QY 65 KKHGEHDEFLEKLEKRLDKVDINVSAYDVSVAQEKWVESFEKLRKLDHDDGLMKANET 124

Db 86 -----FTGYHLKDYQVSDISRDYRKLASEFAKAGMEKKGH 121

QY 125 YELFK-AISTLSIMAFAYLQYLG--W-YITSACLALAWQOFGWLTHFCHOOPTKNRP 180

Db 122 GVVISLFCVLSLLSACVYGVLYSGSFVHMLSGAILGLAWQIAYLGHDAHYQMMAIRG 181

QY 181 LNDTISLFFGNEFGSRDWKDKHNTHAATNVIDHDGIDLAP-----LFAETPGD 233

Db 182 WNKFAIFGNCITGISIAWKKWTHNAHIAACNSLDYDPLQHLPLMAVSKLFSNITSV 241

QY 234 LCKYKASFEKAILKIVPYOHLFTAMPLRFSWTGQSVQWVFKEQMEYKVKYQNAFWE 293

Db 242 FYGRLTFDPLARFEVSYQHVLYPIYMCVARVNLXLQTILLISKR----KIPDRG--- 293

QY 294 QATVIG---HWAVFYQLFLPTWPLRVAYFIISQMGGLLIAHV-VTFNHNVDKY--P 347

Db 294 -LNLGLTFLFTWFPPLVLSRLPNMPERVAFLVSVFCVTG--IQHIQFTLNHFSGDVVGP 350

QY 348 ANSRILNFAALQTLTTRNTPSPFDIWLWGLNLYQIEHLLFTMPRCNLNACVYKWEK 407

Db 351 PKG---DNWFEKOTRGITDIACSWMDWFFGLOFQLEHLLFPRLPCHLRSISPICREL 407

QY 408 CKNNPLVDDYFDGYAMNLOQLKNMAEHIQAK 441

Db 408 CKKNPLVSVSFYDANVTTLKTLRTAA--LQAR 439

## RESULT 13

US-09-791-537-105419

; Sequence 105419, Application US/09791537

; GENERAL INFORMATION:

; APPLICANT: Bionomix, Inc.

; APPLICANT: Danzer, Joseph

; APPLICANT: Debe, Derek

; TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMBERS

; TITLE OF INVENTION: METHODS OF USE THEREOF

; FILE REFERENCE: 261/210

; CURRENT APPLICATION NUMBER: US/09/791,537

; CURRENT FILING DATE: 2001-02-22

; NUMBER OF SEQ ID NOS: 153055

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 105419

; LENGTH: 448

; TYPE: PRT

; ORGANISM: Borago officinalis

US-09-791-537-105419

Query Match 19.0%; Score 457.5; DB 5; Length 448;

Best Local Similarity 28.1%; Pred. No. 3.1e-31;

Matches 128; Conservative 72; Mismatches 184; Indels 71; Gaps 15;

QY 10 LRMKVDGKWLSEELVKHPGGAV-IEQYRNSDATHIFHAFHEGSSQAYKQLDLLKKHG 68

Db 23 LWISIQCK-AVDYSDWVKDHPGGSFPLKSLAGOEVTDAFVAFHPASTW----- 69

QY 69 EHDEFLEKLEKRLDKVDINVSAYDVSVAQ-----EKKWVESFEKLRKLDHDDGLMKANET 124

Db 70 -----KNLDRKFTGYLKYDYSVSEVSKDYRKLVEFSKM--GLYD-----KKG 110

QY 125 YELFKAISTLSIMAFAYLQYLG-----WYITSACLALAWQOFGWLTHFCHOOPT 176

Db 111 HIMP---ATLCFIAMLFAMSVYGLFCEGVLVHLFSCCLMGFLWISQGWIGHAGHYMVV 167

QY 177 KNRLPNDTISLFFGNEFGSRDWKDKHNTHAATNVIDHDGIDLAP-----LFAF 229

Db 168 SDSRLNKFMGIFAANCLSGISICGWKWNHNAHIAACNSLEYDPLQYIPFLVYSSKFFGS 227

QY 230 IPDGLCKYKASFEKAILKIVPYOHLFTAMPLRFSWTGQSVQWVFKEQMEYKVKYQVN 289

Db 228 LTHSFYEKRLTDSLRSRFFSVYQHTFYPIMCAARLNMVYOSLIMLLTKRNVSYRAHE-- 285

QY 290 AFEQATIVGHAW-VFYQLFL--LPTWPLRVAYFIISQMGGLLIAHVVTFNHNSVDKY 346

Db 286 -----LLGCLVFSIWPVLLVSCLPNWERIMFVTLASVTGNQOVQ-FSLNHFSSVY 337

QY 347 PANSRILNFAALQTLTTRNTPSPFDIWLWGLNLYQIEHLLFTMPRCNLNACVYKYE 406

Db 338 VGKPK-GNNWFEKOTDGTDLDISCPWMDWFFGLOFQIEHLLFPKPRCNLRKISPYVIE 396

QY 407 WCKENLPLVDDYFDGYAMNLOQLKNMAEHIQAK 441

Db 397 LCKKHLNLPYNSAFSKANEMTLRTLRTA--LQAR 429

## RESULT 14

US-09-791-537-102275

; Sequence 102275, Application US/09791537

; GENERAL INFORMATION:

; APPLICANT: Bionomix, Inc.

; APPLICANT: Danzer, Joseph

; APPLICANT: Debe, Derek

; TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY ME

; TITLE OF INVENTION: METHODS OF USE THEREOF

; FILE REFERENCE: 261/210

; CURRENT APPLICATION NUMBER: US/09/791,537

; CURRENT FILING DATE: 2001-02-22

; NUMBER OF SEQ ID NOS: 153055

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 102275

; LENGTH: 448

; TYPE: PRT

; ORGANISM: Borago officinalis

US-09-791-537-102275

Query Match 18.9%; Score 454.5; DB 5; Length 448;

Best Local Similarity 28.1%; Pred. No. 5.7e-31;

Matches 128; Conservative 71; Mismatches 185; Indels 71; Gaps 15;

QY 10 LRMKVDGKWLSEELVKHPGGAV-IEQYRNSDATHIFHAFHEGSSQAYKQLDLLKKHG 68

Db 23 LWISIQCK-AVDYSDWVKDHPGGSFPLKSLAGOEVTDAFVAFHPASTW----- 69

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Db 23 LWSIQGK-AYDVSDWKDPHGGSPFLKSLAQGEVTDFAVAFHPASTW----- 69
QY 69 EHDEFLEKLEKRLDKVDINVSAYDSVAQ-----EKKMVESEKLEKROKLHDDGLMKANET 124
Db 70 -----KNDKFFTYGKLDYSVSEVSKDKRLVFEFSKM--GLYD-----KKG 110
QY 125 YELFKAISTLSIMAFAYIQYLQ-----WYITSACILALAWOQFGWLTHEFCHQOPT 176
Db 111 HLMF---ATLCFIAMLFAMSVYGLVFCGVLVHLSGCLMGLFQWISGIGHDAGHYMVV 167
QY 177 KRPNDTISLFFGFLQFSDWKKDKHNTHTAATNVDHGDIDLAP-----LEAF 229
Db 168 SDSRLNKGFIFAANCLSGISGKWNHNAHHAACNSLEYDPDQIYIPFLVVSCKFFGS 227
QY 230 IPGDLCYKASFEKAILKIVPYOHLYFTAMLPLRFSGVQSWVQVFKENOMEYKVYQRN 289
Db 228 LSHYEYERKLTDSLRSRFFVSQHTFTFPMCAARLNMYQSLIMLLTKRNVSYRAQE-- 285
QY 290 AFWEQATIVGHAM-VFYQLFL--LPTWPLRVAYFIISOMGGGLLIAHVVTFNHNSVDKY 346
Db 286 -----LLGCLVFSIWTYPLLVSCLPNMGERTMFVIASLVTGMOQVQ-FSLNHFSSVY 337
QY 347 PANSRLNNAALQILITRNMTSPFIDWLWGGLNYQIEHHLFPTMPRCNLNACVKYVKE 406
Db 338 VGKPK-GNNWFEKQDTGTLDTISCPWMDWFHGGLOFQIEHHLFPMKPRCNLRKISPYVIE 396
QY 407 MCKENNLPLYVDYFDGYAMNLQOLKNAEHIOAK 441
Db 397 LCKKHNLPLYNYSFSGANEMTLRLNTA--LQAR 429

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RESULT 15

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US-09-791-537-87710
; Sequence 87710, Application US/09791537
; GENERAL INFORMATION:
; APPLICANT: Bionomix, Inc.
; APPLICANT: Debe, Derek
; TITLE OF INVENTION: Danzer, Joseph
; TITLE OF INVENTION: THREE DIMENSIONAL STRUCTURES OF PROTEIN FAMILIES AND FAMILY MEMB
; TITLE OF INVENTION: METHODS OF USE THEREOF
; FILE REFERENCE: 261/210
; CURRENT APPLICATION NUMBER: US/09/791,537
; CURRENT FILING DATE: 2001-02-22
; NUMBER OF SEQ ID NOS: 153055
; SOFTWARE: Patent in version 3.0
; SEQ ID NO 87710
; LENGTH: 446
; TYPE: PRT
; ORGANISM: Ricinus communis
US-09-791-537-87710

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Query Match      18.8%; Score 452; DB 5; Length 446;
Best Local Similarity 28.5%; Pred. No. 9.3e-31;
Matches 130; Conservative 65; Mismatches 195; Indels 66; Gaps 14;

QY 6 NASGLRMKVDGKWLSELVKHPGG-AVIEQYRNSDATHIFHAFHGGSSQAYKQLDLD 64
Db 18 NPGDLWISIQGK-IYVNTDWSKDHGGVSPLLHLAGQDVDAFVAYHPCGTAWQY----- 70
QY 65 KKHGEHDEFLEKLEKRLDKVDINVSAYDSVAQEKK-----MVESFEKLEKROKLHDDGLMK 120
Db 71 -----LDKFTGYHLKDYSVSETSKDYRRILVAEFSKL-----GFEK 106
QY 121 ANETYP--LFKAISTLSIMAFAYIQYLQW-YITSACILALAWOQFGWLTHEFCHQOPTK 177
Db 107 KGHIAFITLVSMVMLLALSIVYGLCSNSTWVHLISGGLMGFMWISGWIHSDHSGHYQVMM 166
QY 178 NRPLNDTISLFFGFLQFSDWKKDKHNTHTAATNVDHGDIDLAPLAF-----I 230
Db 167 SRRFNRLAQILSGNCLAGISIAWKNHNTHTAATNVDHGDIDLAPLAF-----I 226
QY 231 PGDLCKYKASFEKAILKIVPYOHLYFTAMLPLRFSGVQSWVQVFKENOMEYKVYQRNA 290

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Db 227 TSYFYERKMNFDCAARFLVSYQHLYTFYPMCFARINLFAQISLILLSKRRV-----ANR 280
QY 291 FHEQATIVGHAWWVYQLELLPTWPLRV-----AYFIISOMGGGLLIAHV-VTFNHNSSVDK 345
Db 281 GOEILGVLVFWIWTYPLVSCLPNMGERVNMFVAASFVTR-----IQHVQFCLNHFSSSV 334
QY 346 YPANSRILNNAALQILITRNMTSPFIDWLWGGLNYQIEHHLFPTMPRCNLNACVKYVKE 405
Db 335 Y-LGLLIANDWFENQTKGTLDITCSSWMDWFHGGLOFQMEHHLFPLPRVKLRKYSPPVR 393
QY 406 EWCKENNLPLYVDYFDGYAMNLQOLKNAEHIOAK 441
Db 394 ELCKKHNLPLYDSASFNANELTFKTLR--AAALQAR 427

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Search completed: October 3, 2002, 09:51:21  
Job time: 282 sec

